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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,473	10/27/2003	Yukio Kadowaki	2271/71337	5603

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EXAMINER	
BITAR, NANCY	
ART UNIT	**PAPER NUMBER**
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,473	KADOWAKI, YUKIO	
	Examiner	Art Unit	
	Nancy Bitar	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Remarks

1. The remark filed on December 12, 2006 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Schwartz et al.(U.S. Patent No. 2003/0219166 A1).

As to claim 1, Schwartz et al. discloses an image processing apparatus(apparatus for specifying quantization, see abstract), comprising: a coding part partitioning a wavelet coefficient obtained by performing two-dimensional discrete wavelet transform on image data into bit-planes and generating coded data of the image

data by performing entropy coding on the wavelet coefficient for each of the bit-planes (wavelet transform 202B to be applied to the data, column 3,[0057], note that code blocks can be grouped into partitions. These rectangular arrays of coefficients can be extracted independently. The individual bit-planes of the coefficients in a code-block are entropy coded with three coding passes. Each of these coding passes collects contextual information about the bit-plane compresses image data, column 1, [0006]).

Schwartz et al. in figure 5 teaches

a first memory (501)accommodating a size of a coded data portion generated from the wavelet coefficient for each of the bit-planes through the execution of the entropy coding(see column 5 ,[0083]);

a second memory (505) accommodating the coded data of the image data

a setting part (i.e. user select, the threshold can be user set or adaptive based on some criteria, see column 11,[0181]) setting a target size of the coded data (the coefficient is set to be within the quantization bin size of the other coefficient value or twice the quantization size, see column 11,[0181]);

and a data size adjustment part adjusting the size (coefficient values may be modified to be either a predetermines closeness to another coefficient value, column 11,[0181])of the coded data such that the size of the coded data falls within an acceptable range (tile height between 128 and 1024 inclusive and using in-place memory for 3 levels of the transform is a good heuristic, column5, [0080]) including the target size set by the setting part (the coefficient is set to be within the quantization bin size of the other coefficient value, column 11,[0181]) by sequentially discarding a portion of the coded

data(useless data, column 10, [0170]) in a least significant order from the second memory based on the size of the coded data portion corresponding to each of the bit-planes in the first memory(layer 0 has 4096 bits, layer 1 has 11,915 bits, column 9,[0153], note that the first memory accommodate the size thus each layer correspond to a certain size).

As to claim 2, Schwartz et al. teaches the image processing apparatus as claimed in claim 1, wherein the image processing apparatus is based on JPEG2000 (All LH, HL and HH coefficients (using the nominclature of ITU-T Rec.T.800/ISO/IEC 154441:2000 JPEG 2000 Image Coding System) are coded, column 3, [0063]).

As to claim 3, Schwartz et al. teaches the image processing apparatus as claimed in claim 2, wherein the coding part partitions the wavelet coefficient into bit-planes for each code-block formed of a predetermined pixel matrix
(processing logic selects one or more layers for quantization based on sideband information (processing block 1002). Note that sideband information described herein or a copyright license for an image or text or other file format information i.e. pixel matrix, column 10, [0167]), and generates the coded data of the image data by performing entropy coding on the wavelet coefficient for each of the bit-planes in accordance with the JPEG2000 (wavelet transform 202B to be applied to the data, column 3,[0057], note that code blocks can be grouped into partitions. These rectangular arrays of coefficients can be extracted independently. The individual bit-planes of the coefficients in a code-block are entropy coded with three coding passes. Each of these coding passes collects contextual information about the bit-plane compresses image data, column 1, [0006]).

Schwartz et al. teaches the first memory accommodates a storage address(the file format may contain data besides the code stream , i.e. .address, column 1,[0010])of a coded data portion corresponding to each code-block and a size of a coded data portion corresponding to each coding pass for each of the bit-planes of each code-block with respect to the coded data stored in the second memory (the memory for level 4,5, and 6 could be placed in a single memory after level 3 has been generated or in a completely different and separate memory, column 4,[0073],figure 3D,3F)

and the data size adjustment part adjusts the size of the coded data (coefficient values may be modified to be either a predetermines closeness to another coefficient value, column 11,[0181])such that the size of the coded data falls within an acceptable range (tile height between 128 and 1024 inclusive and using in-place memory for 3 levels of the transform is a good heuristic, column5, [0080]) including the target size of the coded data set by the setting part (the coefficient is set to be within the quantization bin size of the other coefficient value, column 11,[0181]) by subsequently discarding a portion of the coded data (useless data, column 10, [0170]) in a least significant order from the second memory based on the size of the coded data portion corresponding to each coding pass stored in the first memory (layer 0 has 4096 bits, layer 1 has 11,915 bits, column 9,[0153]).

As to claim 4 differ from claim 1 only in that claim 4 is a method claim whereas, claim 1 is an apparatus claim. Thus, claim 4 is analyzed as previously discussed with respect to claim 1 above.

As to claim 5 differ from claim 2 only in that claim 5 is a method claim whereas; claim 2 is an apparatus claim. Thus, claim 5 is analyzed as previously discussed with respect to claim 2 above.

As to claim 6 differ from claim 3 only in that claim 6 is a method claim whereas, claim 3 is an apparatus claim. Thus, claim 6 is analyzed as previously discussed with respect to claim 3 above.

As to claim 7, the image processing apparatus of claim 1, wherein said coded data is data generated by performing entropy coding and a portion of the entropy data (after the transformation is applied to coefficients buffers 502, the context model 503 and entropy coder 505 can perform further compression processing on the already transformed where it is buffered in coded data memory 505, paragraph [0085], see figure 14) .

As to claim 8, the image processing apparatus of claim 1,wherein the size of the coded data is adjusted to fall within the acceptable range (note that one of the coefficient values may be modified to be either a predetermines closeness to another coefficient value; the coefficient is set to be within the quantization bin size of the other coefficient value or twice the quantization size, see column 11,[0181]), without repeatedly performing entropy encoding (note that rectangular arrays of coefficients can be extracted independently. The individual bit-planes of the coefficients in a code-block are entropy coded with three coding passes. Each of these coding passes collects contextual information about the bit-plane compressed image data, paragraph [006]).

Response to Arguments

4. Applicant's arguments filed December 11,2006 have been fully considered but they are not persuasive.
5. The Amendment of The Title has been entered.

Rejection Under 35 U.S.C. ∋102

As to Deficiencies of Schwartz- applicant argues that Schwartz does not teach or suggest that the coded data stored in memory is reduced by sequentially discarding a portion of the coded data in a least significant order based on the size of the coded data portion corresponding to each of the bit-planes. However, reference does not focus on discarding a portion of the coded data based on the size of the coded data , it does not mean that the reference does not teach that element. Schwartz et al teaches in paragraph [0170]; useless data that are read as discarded data because by definition discard is defined : *To let go or get rid of as being* ***useless*** *or defective* Applicant assumes that Schwartz approach using entropy coding is time consuming and it is not easy to adjust the data to a desired size .

Applicant argues that reference does not teach or suggest that the coded data stored in memory is reduced by sequentially discarding a portion of the coded data in a least significant order based on the size of the coded data portion corresponding to each of the bit-planes. However, applicant specifically discloses in page 9 that Schwartz et al proposes in paragraph [0181] that the threshold may be user set or adaptive based on

some criteria. Therefore, the user can reduce the coded data stored in memory and the first memory accommodate the size thus each layer correspond to a certain size. Moreover, Schwartz teaches that the coefficient value is set to be within the quantization bin size of the other coefficient value or twice the quantization bin size and he added that the quantization can be code stream quantization with a code block-based rule.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar 01/25/2007

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER